ABSTRACT OF THE DISCLOSURE

The method of the present invention involves first estimating the common gamut of the colors that this printer is expected to reproduce. Two color test targets are defined, each containing a wide range of color patches spanning color space. Preferably comprising color patches which are expected to be outside the gamut of the printer as well as color patches expected to be within the gamut of the printer. The left-to-right test target is printed in single-pass, uni-directional print mode, (printing on left-to-right scans only) and a color calibration table for left-to-right printing is generated. The right-to-left test target is printed in single-pass, uni-directional print mode, (printing on right-to-left scans only) and a color calibration table specific for right-to-left printing is generated. The next step of the present invention involves determining the mathematical intersection of the gamuts produced by printing in left-to-right mode only and by printing in right-to-left mode only. This is done by, first printing the left-to-right test target processed by the color calibration table associated with the primary print direction. Then, printing the right-to-left test target processed by the color calibration table associated with the secondary print direction and comparing each of the corresponding outputs. Colors which are within the gamut of both left-to-right only and right-to-left only printing are identified by their similarity or distance from each other in color space. Thereafter and having obtained the gamut intersection of left-to-right and right-to-left printing modes, new calibration tables are generated for each printing direction with the starting gamut (range of achievable colors) based on a slightly smaller gamut than the gamut intersection identified. In other words, the color gamut, having been clipped in both directions to the intersection of the gamuts, becomes the new gamut for the iterative calibration process.